

REMARKS:

Claims 1-7, 9-16, 18-25, and 27-30 are currently pending in the subject Application.

Claims 8, 17, and 26 have been previously canceled without *prejudice*.

Claims 1-7, 9-16, 18-25, and 27-30 stand rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,219,649 to Joel Jameson ("*Jameson*").

Claims 28-30 stand rejected under 35 U.S.C. § 103(a) over *Jameson* in view of Supply Chain Management: Strategy, Planning, and Operation, Prentice Hall, October 2000, by Chopra et al. ("*Chopra*").

A Final Office Action in the subject Application was mailed to the undersigned on 22 February 2007, which provides for a response period ending 22 May 2007. The Applicants filed an Amendment After Final on 23 April 2007 (since 22 April 2007 was a Sunday), within two (2) months of the date of the Final Office Action. An Advisory Action was mailed to the undersigned on 7 May 2007. The Advisory Action stated that the proposed Amendments filed on 23 April 2007 will not be entered because they raise new issues that require further consideration and/or search. (7 May 2007 Advisory Action, Page 1). The Applicants respectfully reiterate here the arguments set forth in the Amendment After Final filed on 23 April 2007, as if fully set forth herein.

By this Amendment, the Applicants have amended Claims 1-3, 9, 10, 12, 18, 19, 21, and 27 to more particularly point out and distinctly claim the Applicant's invention. By making these amendments, the Applicants make no admission concerning the merits of the Examiner's rejection, and respectfully reserve the right to address any statement or averment of the Examiner not specifically addressed in this response. Particularly, the Applicants reserve the right to pursue broader claims in this Application or through a continuation patent application. No new matter has been added.

REJECTION UNDER 35 U.S.C. § 103(a):

Claims 1-7, 9-16, 18-25, and 27-30 stand rejected under 35 U.S.C. § 103(a) over *Jameson*. Claims 28-30 stand rejected under 35 U.S.C. § 103(a) over *Jameson* in view of *Chopra*.

The Applicants respectfully submits that *Jameson* fails to disclose, teach, or suggest each and every element of Claims 1-7, 9-16, 18-25, and 27-30. The Applicants further respectfully submit that the ***amendments to independent Claims 1, 9, 10, 18, 19, and 27 have rendered moot the Examiner's rejection of these claims and the Examiner's arguments in support of the rejection of these claims.*** The Applicants still further respectfully submit that currently amended independent Claims 1, 9, 10, 18, 19, and 27 contain unique and novel limitations that are not disclosed, suggested, or even hinted at in *Jameson*. Thus, the Applicants respectfully traverse the Examiner's obvious rejection of Claims 1-7, 9-16, 18-25, and 27-30 under 35 U.S.C. § 103(a) over *Jameson*.

Jameson Fails to Disclose, Teach, or Suggest Various Limitations Recited in Applicants Claims

For example, with respect to amended independent Claim 1, this claim recites:

A computer-implemented method for solving a supply chain planning problem, comprising the steps of: comprising:

decomposing the supply chain planning problem into a plurality of independent sub-problems;

providing a plurality of distributed physical database partitions, each partition of said plurality of distributed physical database partitions ***associated with a respective independent sub-problem of said supply chain planning problem***;

operating a plurality of processors in said database, each processor of said plurality of processors ***associated with a respective partition of said plurality of distributed physical database partitions***;

forming a plurality of distributed sub-problem partitions, each of said distributed sub-problem partitions including a plurality of related items and associated with a respective independent sub-problem of said supply chain planning problem;

loading data into a plurality of distributed physical database partitions, said data associated with said plurality of related items, and

each of said distributed physical database partitions associated with a respective one of each of said distributed sub-problem partitions; and solving each of said plurality of said independent sub-problems by separate processes operating in parallel in said database. (Emphasis Added).

Amended independent Claims 9, 10, 18, 19, and 27 recite similar limitations. *Jameson* fails to teach or suggest each and every limitation of amended independent Claims 1, 9, 10, 18, 19, and 27.

The Applicants respectfully submit that *Jameson* fails to disclose, teach, or suggest amended independent Claim 1 limitations regarding a **“computer-implemented method for solving a supply chain planning problem”** and in particular, the Applicants respectfully submit that *Jameson* fails to disclose, teach, or suggest amended independent Claim 1 limitations regarding **“providing a plurality of distributed physical database partitions, each partition of said plurality of distributed physical database partitions associated with a respective independent sub-problem of said supply chain planning problem”**. In particular, the Examiner equates the **“database”** recited in amended independent Claim 1 with the **“matrix”** disclosed in *Jameson*. (22 February 2007 Final Office Action, Pages 3-4). However, **the matrix disclosed in Jameson** merely contains all the random-variable realizations for scenario i, and **does not include, involve, or even relate to the database**, as recited in amended independent Claim 1. (Column 7, Lines 31-32). In contrast, the **“database”** recited in amended independent Claim 1 **is distributed physical database wherein** each partition of said plurality of distributed physical database partitions is **associated with a respective independent sub-problem of said supply chain planning problem**. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner’s comparison between *Jameson* and amended independent claim 1 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent Claim 1 from *Jameson*.

The Applicants further respectfully submit that *Jameson* fails to disclose, teach, or suggest amended independent Claim 1 limitations regarding **“operating a plurality of**

processors in said database, each processor of said plurality of processors ***associated with a respective partition of said plurality of distributed physical database partitions***". In particular, the Examiner equates the "***processor in said database***" recited in amended independent Claim 1 with a "***processor***" disclosed in *Jameson*. (22 February 2007 Final Office Action, Pages 4-5). However, ***the processor disclosed in Jameson*** is merely associated with an ability to allocate resources in the presence of uncertainty, and ***does not include, involve, or even relate to the processor in said database***, as recited in amended independent Claim 1. (Column 5, Lines 10-35). In contrast, the "***processor in said database***" recited in amended independent Claim 1 ***is a plurality of processors in said database wherein the plurality of processors associated with a respective partition of said plurality of distributed physical database partition***. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner's comparison between *Jameson* and amended independent claim 1 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent Claim 1 from *Jameson*.

The Office Action Acknowledges that *Jameson* Fails to Disclose Various Limitations Recited in Applicants Claims

The Applicants respectfully submit that the Office Action acknowledges, and the Applicants agree, that *Jameson* fails to disclose various limitations recited in independent Claim 1. Specifically the Examiner acknowledges that *Jameson* fails to teach "***solving a supply chain method***". (22 February 2007 Final Office Action, Page 8). However, the Examiner alleges that *Jameson* somehow inherently includes ***solving a supply chain method***. The Applicants respectfully disagree and respectfully traverse the Examiner's assertions regarding the alleged inherent disclosure of *Jameson*.

The Applicants respectfully submit that a reference, by definition, must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. (*In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). To the extent the Examiner relies on principles of inherency in making the present rejections in the Office Action, inherency requires that the asserted proposition necessarily flow from the

disclosure. (*In re Oelrich*, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981); *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1463-64 (Bd. Pat. App. & Int. 1990); *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Int. 1987); *In re King*, 231 U.S.P.Q. 136, 138 (Fed. Cir. 1986)). It is **not enough that a reference could have, should have, or would have been used as the claimed invention**. In fact, “the mere fact that a certain thing may result from a given set of circumstances is not sufficient.” (*Oelrich*, at 326, quoting *Hansgirk v. Kemmer*, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993), quoting *Oelrich*, at 326; see also *Skinner*, at 1789). For example, “Inherency ... may not be established by probabilities or possibilities [... the] mere fact that a certain thing may result from a given set of circumstances is not sufficient.” (*Skinner*, at 1789, citing *Oelrich*). Where inherency is alleged, the Office’s burden of establishing *prima facie* case includes the burden of providing “...some evidence or scientific reasoning to establish the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art.” (*Skinner* at 1789).

The Office Action Fails to Properly Establish a *Prima Facie* case of Obvious over the *Jameson*

The Applicants respectfully submit that the Office Action fails to properly establish a *prima facie* case of obviousness based on the proposed combination of *Jameson* and *Jameson* alleged inherent features. The Office Action merely states that although *Jameson* fails to teach a method of “solving a supply chain method” *Jameson* “teaches handling forecasted demand uncertainty as a constraint in the algorithm to determine optimal resource allocations.” (22 February 2007 Final Office Action, Page 8). (Emphasis Added). The Applicants respectfully disagree.

The Applicants further respectfully submit that this alleged inherency relied on by the Examiner is nowhere disclosed, taught, or suggested in *Jameson*. The Examiner conclusively asserts that “*Jameson* specifically handles a supply chain problem (by handling forecasted demand uncertainty) as described by the Applicants.” (22 February 2007 Final Office Action, Page 8). The Applicants respectfully disagree and further respectfully request clarification as to how the Examiner arrives at this conclusion. For

example, how does “*Jameson* specifically handles a supply chain problem” and to what extent does the Examiner purport that “handling forecasted demand uncertainty” applies to the subject Application. ***The Applicants respectfully request the Examiner to point to the portions of Jameson which contain the teaching, suggestion, or motivation to arrive at the alleged inherency relied on by the Examiner.*** The Applicants further respectfully submit that the Examiner is using the subject Application as a template to formulate reconstructive hindsight, which constitutes impermissible use of hindsight under 35 U.S.C. § 103(a).

A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the ***prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art.*** *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). (Emphasis Added). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. With respect to the subject Application, the ***Examiner has not adequately supported the selection and combination of Jameson or the alleged inherency to render obvious the Applicants claimed invention.*** The Examiner's unsupported conclusory statements that although *Jameson* fails to teach a method of “solving a supply chain method” *Jameson* “teaches handling forecasted demand uncertainty as a constraint in the algorithm to determine optimal resource allocations” and “*Jameson* specifically handles a supply chain problem (by handling forecasted demand uncertainty) as described by the Applicants”, ***does not adequately address the issue of motivation to combine.*** (22 February 2007 Final Office Action, Page 8). This factual question of motivation is material to patentability, and cannot be resolved on subjective belief and unknown authority. *Id.* It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to “[use] that which the inventor taught against its teacher.” *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983).

The Applicants Claims are Patentable over the *Jameson*

The Applicants respectfully submit that amended independent Claim 1 is considered patentably distinguishable over *Jameson*. This being the case, amended independent Claims 9, 10, 18, 19, and 27 are also considered patentably distinguishable over *Jameson*, for at least the reasons discussed above in connection with amended independent Claim 1.

Furthermore, with respect to dependent Claims 2-7, 11-16, 20-25, and 28-30: Claims 2-7 and 28 depend from amended independent Claim 1; Claims 11-16 and 29 depend from amended independent Claim 10; and Claims 20-25 and 30 depend from amended independent Claim 19. As mentioned above, each of amended independent Claims 1, 9, 10, 18, 19, and 27 are considered patentably distinguishable over *Jameson*. Thus, dependent Claims 2-7, 11-16, 20-25, and 28-30 are considered to be in condition for allowance for at least the reason of depending from an allowable claim.

For at least the reasons set forth herein, the Applicants respectfully submit that Claims 1-7, 9-16, 18-25, and 27-30 are not rendered obvious by *Jameson*. The Applicants further respectfully submit that Claims 1-7, 9-16, 18-25, and 27-30 are in condition for allowance. Thus, the Applicants respectfully request that the rejection of Claims 1-7, 9-16, 18-25, and 27-30 under 35 U.S.C. § 103(a) be reconsidered and that Claims 1-7, 9-16, 18-25, and 27-30 be allowed.

THE LEGAL STANDARD FOR OBVIOUSNESS REJECTIONS UNDER 35 U.S.C. § 103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, ***there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.*** Second, there must be a reasonable expectation of success. Finally, ***the prior art reference*** (or references when combined) ***must teach or suggest all the claim limitations.*** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be

found in the prior art, **and not based on applicant's disclosure**. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, **there must be something in the prior art as a whole to suggest the desirability**, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

A recent Federal Circuit case makes it clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

CONCLUSION:

In view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and early reconsideration and a Notice of Allowance are earnestly solicited.

A Request for Continued Examination (RCE) is being filed in electronically herewith to facilitate the processing of this deposit account authorization. **The Director is hereby authorized to charge the \$790.00 RCE fee, to Deposit Account No. 500777.** Although the Applicants believe no additional fees are deemed to be necessary; the undersigned hereby authorizes the Director to charge any additional fees which may be required, or credit any overpayments, to **Deposit Account No. 500777.** If an extension of time is necessary for allowing this Response to be timely filed, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) to the extent necessary. Any fee required for such Petition for Extension of Time should be charged to **Deposit Account No. 500777.**

Please link this application to Customer No. 53184 so that its status may be checked via the PAIR System.

Respectfully submitted,

17 May 2007
Date

/Steven J. Laureanti/signed
Steven J. Laureanti, Registration No. 50,274

BOOTH UDALL, PLC
1155 W. Rio Salado Pkwy., Ste. 101
Tempe AZ, 85281
214.636.0799 (mobile)
480.830.2700 (office)
480.830.2717 (fax)
steven@boothudall.com

CUSTOMER NO. 53184